

REMARKS/DISCUSSION OF ISSUES

By this Amendment, Applicants cancel claims 1, 3, 9, 12, 14, 17-18, and 20 without disclaimer of the underlying subject matter or prejudice against future prosecution. Applicants also amend claims 2, 5-6, 8, 10, 13, 15-16, 19, 21-23, 25, 27 and 28, and add new claims 31-38. Accordingly, claim 2, 4-8, 10-11, 13, 15-16, 19 and 21-38 are pending in the application.

Reexamination and reconsideration are respectfully requested in view of the following remarks.

35 U.S.C. § 112

The Office Action rejects claim 7 under 35 U.S.C. § 112.

By this Amendment, Applicants amend claim 8 to change the phrase "*the at least one parameter*" to read "*the image parameter*."

Therefore, Applicants respectfully submit that the rejection is overcome.

Accordingly, Applicants respectfully request that the rejection of claim 8 under 35 U.S.C. § 112 be withdrawn.

35 U.S.C. §§ 102 and 103

At the outset, by this Amendment Applicants cancel the previously-pending independent claims 1, 12 and 17, rewrite claims 5, 15 and 21 in independent form, and amend the remaining claims to all depend from the new independent claims 5, 14 and 21.

The Office Action rejects claims 5, 15 and 21 under 35 U.S.C. § 103 over Peleg U.S. Patent 4,884,696 ("Peleg") in view of Hashimoto U.S. Patent 6,704,054 ("Hashimoto"). Applicants respectfully traverse those rejections, and respectfully submit that claims 2, 4, 6-8, 10-11, 13, 16, 19 and 21-30, which depend variously from claims 5, 15 and 21, are all patentable over the cited art, for at least the following reasons.

Claim 5

Among other things, the method of claim 5 includes determining an incorrect

classification of at least one feature of the object based on first image data produced as a result of an original setting of an image parameter, calculating image parameter modification information to correct the incorrect classification, modifying the original setting of the image parameter to a modified setting based on the image parameter modification information, and producing second image data representing the same object using the modified image parameter.

Applicants respectfully submit that no combination of Peleg and Hashimoto would ever produce a method including this combination of features.

The Office Action fairly admits that Hashimoto does not disclose determining an incorrect classification of at least one feature of the object based on first image data produced as a result of an original setting of an image parameter, calculating image parameter modification information to correct the incorrect classification, and modifying the original setting of the image parameter to a modified setting based on the image parameter modification information.

However, the Office Action states that Peleg discloses calculating image parameter modification information to correct the incorrect classification, citing Peleg at col. 5, line 4.

Applicants respectfully disagree.

Peleg teaches in the cited text that classification error probabilities may be used as feedback data for a machine learning algorithm for adjusting the classification scale that is employed for classification. It does not disclose or suggest using image data from an object to calculate any image parameter modification for modifying an image parameter that was used to produce the image data. It also does not disclose employing any modified image parameter to produce second image data representing the same object.

Applicants respectfully submit that Hashimoto does not include any teachings that would remedy these deficiencies of Peleg.

Accordingly, for at least these reasons, Applicants respectfully submit that claim 5 is patentable over any combination of Peleg and Hashimoto.

Claims 2, 4, 6-8, 10 and 11

Claims 2, 4, 6-8, 10 and 11 all depend from claim 5. Applicants respectfully submit that Hashimoto and Dube do not remedy the shortcomings of Peleg and Hashimoto as set forth above with respect to claim 5. Applicants also respectfully submit that, with respect to claim 8, the references - and particularly Dube - do not disclose or suggest producing first image data using an image processing parameter, and: (1) calculating an image processing parameter modification; (2) modifying the original setting of the image processing parameter to a modified setting based on the image parameter modification information; and (3) producing second image data representing the same object using the modified image processing parameter.

Accordingly, for at least these reasons, Applicants respectfully submit that claims 2, 4, 6-8, 10 and 11 are all patentable over the cited art.

Claim 15

Among other things, the method of claim 15 includes setting at least one image acquisition parameter to capture a first image of the object; determining an incorrect classification of at least one feature of the object based on the image data representing the first image captured using said setting; determining image parameter modification information to correct the incorrect classification and produce an adequate classification; and modifying the image acquisition parameter based on the image parameter modification information to capture a second image of the object.

For similar reasons to those set forth above with respect to claim 5, Applicants respectfully submit that no combination of Peleg and Hashimoto would produce any method that determines any image acquisition parameter modification information to correct an incorrect classification and produce an adequate classification; and modify the image acquisition parameter based on the image acquisition parameter modification information to capture a second image of the same object.

Accordingly, for at least these reasons, Applicants respectfully submit that claim 15 is patentable over any combination of Peleg and Hashimoto.

Claims 13 and 16

Claims 13 and 16 depend from claim 15. Applicants respectfully submit that Hashimoto does not remedy the shortcomings of Peleg and Hashimoto as set forth above with respect to claim 15.

Accordingly, for at least these reasons, Applicants respectfully submit that claims 13 and 16 are patentable over the cited art.

Claim 21

Among other things, the inspection system of claim 21 includes a classification processor to: (1) receive first image data representing an object; (2) determine an incorrect classification of at least one feature of the object based on the first image data as a result of an original setting of an image parameter used to produce the first image data; and (3) calculate image parameter modification information to correct the incorrect classification, and to modify the original setting of the image parameter to a modified setting based on the image parameter modification information for use in producing second image data representing the object.

For similar reasons to those set forth above with respect to claim 5, Applicants respectfully submit that no combination of Peleg and Hashimoto would produce any inspection system that includes such a classification processor.

Accordingly, for at least these reasons, Applicants respectfully submit that claim 21 is patentable over any combination of Peleg and Hashimoto.

Claims 19 and 22-30

Claims 19 and 22-30 depend from claim 21. Applicants respectfully submit that Hashimoto, Dube, Parker and Suzuki do not remedy the shortcomings of Peleg and Hashimoto as set forth above with respect to claim 21.

Accordingly, for at least these reasons, Applicants respectfully submit that claims 19 and 22-30 are patentable over the cited art.

NEW CLAIMS 31-38

New claims 31-38 depend variously from claims 5, 15 and 21 and are deemed patentable for at least the reasons set forth above with respect to 5, 15 and 21, and

for various novel features recited therein.

CONCLUSION

In view of the foregoing explanations, Applicants respectfully request that the Examiner reconsider and reexamine the present application, allow claims 2, 4-8, 10-11, 13, 15-16, 19 and 21-38, and pass the application to issue. In the event that there are any outstanding matters remaining in the present application, the Examiner is invited to contact Kenneth D. Springer (Reg. No. 39,843) at (571) 283.0720 to discuss these matters.

Respectfully submitted,

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